

BIO-SPECTRUM TREATMENT DEVICE

WS-111

User's Manual

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READ THIS MANUAL CAREFULLY BEFORE APPLICATION

SPECIFICATIONS

Main spectrum range: 0.5 - 24 μ m, extending to weak millimeter wave

Useful life: 5 years

Voltage: 230 VAC, 50 Hz

Power: 240 W

Timer precision: 60 min $\pm$ 5%

Operation Conditions:

Environmental Temperature: +5~+40°C

Relative Humidity : $\leq$ 80%

Storage Conditions:

Environmental Temperature : -40°C ~ +70°C

Relative Humidity : $\leq$ 95%

Atmospheric pressure: 500 – 1060 hPa

Classification of medical electrical equipment: In-door I-B

Net weight: 9.5 kg

STRUCTURE

The device consists of the following parts. (See Fig.

1)

1. Irradiation head assembly (with an irradiator, flexible pipe)
2. Control box assembly with power supply line
3. Pole and Chassis assembly
4. Power supply line

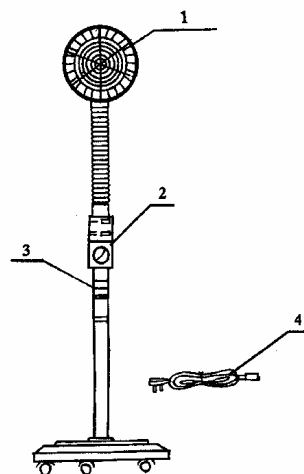


Fig. 1

INSTALLATION

Please check the components following the packing list

1. Push the five multi-direction wheels into the holes on the wheeled bottom individually (see Fig. 2).

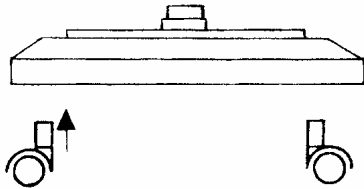


Fig.2

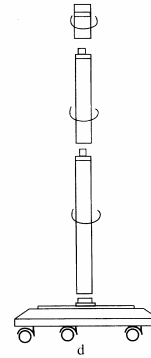


Fig.3

2. The device provides three pipes to users for assembling, The connection between the pipe and the connector should be tightened up, in case of looseness while using. (see Fig. 3).
3. Install the irradiation head and supply wire (see Fig. 4). Loosen the fixed screw (1) on the control box and connect the contact of the control box to the short pipe and tighten the fixed screw on the control box. Insert obliquely the three - pin plug (2) with the power wire into the socket of the control box on the back cover.

OPERATION

1. Insert the power plug.
2. Put the switch to the 'ON' position. When the indicator light is green, it means that the power is connected.
3. Select weak (Low) or strong (High) irradiation by the intensity switch.
4. Turn the TIMER knob to the required time or normal working position "ON". Either strong or weak intensity indicators will be on.

5. The device will be ready for normal use after preheating for 10 minutes.
6. Choose irradiation positions by adjusting the flexible pipe according to the Reference Table of the manual.
7. At the end of the set time, the indicator light will go off, and the device will stop working. Reset the timer if irradiation is prolonged.
8. After use, power switch should be taken off. The indicator will go off. Pull out the power plug and move the flexible pipe to its vertical position.

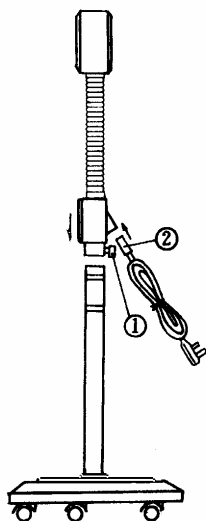


Fig.4

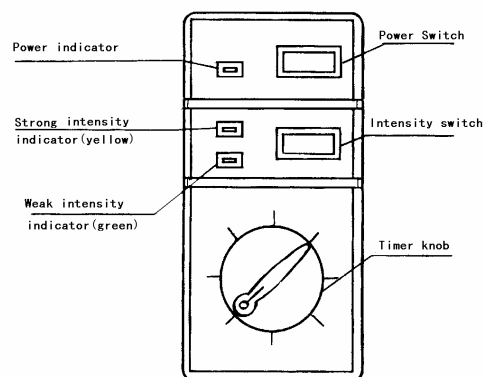


Fig.5

There is an over-temperature protector (TS) in the device. The power circuit will be automatically interrupted when the device temperature exceeds the set-point temperature of the TS (120-130°C). However, it will automatically restart as the temperature falls below the wet-point temperature of the TS.

PRINCIPLES AND FUNCTIONS

The bio-spectrum treatment devices are physiotherapeutic apparatuses of electromagnetic irradiation with broad spectrums, from visible light and whole infrared band (major resource) to microwave (very weak). Through irradiating directly affected parts or traditional Chinese acupoints of the body, both physical and biological beneficial effects can be achieved for cure.

The devices achieve four main effects by means of both stimulating and

inhibiting physiological and biological responses to different clinical parameters.

1. Promoting the blood circulation and dynamics.
2. Regulating the nervo-humoral system.
3. Improving the immune function.
4. Accelerating metabolism.

APPLICATION

Effects or subsidiary effects on the following diseases:

Inflammatory diseases of respiratory system: bronchitis, pediatric pneumonia, bronchial asthma.

Acute and chronic diseases of digestive systems: chronic gastritis, gastric and duodenal ulcer, viral hepatitis.

Wound: wound infection, and insufficient wound healing.

Soft tissue disorder and osteoarthropathy: soft tissues sprain or strain, osteoarthritis, cervical spondylosis.

Skin diseases: herpes zoster, slight burn, bedsore, decubitus ulcer.

Diseases of urinary and genital systems: chronic prostatitis, chronic pelvic inflammation, adnexitis, menalgia.

Others: parotitis.

Please pay special attention to the items with the marks:



: Attention: check related documents



: Electric shock



: Type B



: Covering strictly prohibited



: Guard against burn

USER'S GUIDE

Follow the user's guide after accurate diagnosis by a qualified doctor.

1. At the beginning of the treatment, the choice to irradiate directly at the affected area or relevant acupoint areas should be made according to the order listed in the Reference Table.
2. The irradiated parts should be completely exposed to the irradiation of the device during treatment. At the same time, non-irradiated areas should be kept warm. Clothing should be put on immediately after treatment.
3. The best irradiation distance is the one that makes the affected area feel warm and comfortable. In general, the distance is 10 - 20 cm and temperature of the skin is about 38-40°C.
4. Irradiation can be applied once or more a day, with time no less than 30 minutes per treatment or properly longer for more serious diseases. One course is generally 7 days. Generally, 3 to 5 courses may be taken continuously.
5. When the device is combined with medication (especially medicine for external use), additive effects may be accomplished. Please take this into consideration.
6. Some users may experience skin irritation, tickling or hypnosis, and the condition may even get worse at the beginning of a course of several treatments (e.g. 2-3 days). All these reactions are normal, but close observation should be paid to possible harmful effects. However, these adverse effects will fade away with continuous treatment.
7. ⚠ The weak intensity should be chosen when eye area is included in the irradiated portions. Eyes should be closed, and a pair of shade glasses should be worn, or two watering wet cotton pads should be used to cover the both eyelids. The duration of treatment in this case should be not more than 20 minutes.

8. ⚠ When the irradiating portions involve surface ulceration, skin absence and scars caused by burns or other wounds, the weak intensity should be chosen after the local debridement.
9. ⚠ Users with metal implanted in the body should select the weak intensity for not more than 20 minutes. Patients with pacemakers are prohibited from using the device.
10. ⚠ The elderly, children, the disabled and users whose irradiated areas are hypo-sensitive to heat should be cared for by a family member or nurse when they use the device.
11. ⚠ Patients who are hypersensitive to light and heat should use the device under doctor's advice.
12. ⚠ Areas with serious swelling should be not irradiated directly.
13. The effects may be related to the continuance and accuracy of irradiation during treatment. Better effects may be obtained by regulating the irradiation intensity, time or acupoint areas.
14. A doctor's advice should be taken before using the device to treat diseases that are not listed in the Reference Table.
15. Please see doctor if any adverse results after using the device.

Warning: the device is inadvisable for use on infants and patients with bleeding tendency, high fever, active pulmonary tuberculosis, severe arteriosclerosis or pacemakers.

⚠ ATTENTION

1. Please make sure that the voltage of power supply matches that of the

device.

2. The power socket should be properly wired, including earth grounding.
3. Do not plug in the device when assembling, moving or disassembling it.
4. Do not place the device on a surface with a slope of more than 10 degrees.
5. Before moving the device from one place to another, unplug it. Hold the pillar, but not the flexible pipe or the irradiation head.
6. When adjusting the flexible pipe and choosing the irradiation position, hold the device by the pole, not the flexible pipe, irradiation head, and do not pull the power wire.
7. Plug in or pull out the socket with dry hands. Do not pull the power wire in case of electric shock.
8. The cover of the device is made of plastic and should be handled with care. Compressing and bending it with force is prohibited.
9. The irradiator is a precision component. Don't touch it with foreign materials when using. Collisions, dropping and shacking must be strictly avoided.
10. The cover of the device will be considerably hot when working. Please be careful when adjusting the irradiating position.
11. Never put fingers and other objects into the mesh of the irradiator when the device is working to prevent from scalds and electric shock.
12. Switch off the device after use. If the device will not be used in the near future, unplug it.

13. Do not use the device in bathrooms and other damp places.
14. Under humid conditions or if the device has not been used for a long time, switch the device on and put the switch at the weak intensity position to preheat for 3 minutes and off for 3-4 minutes, and repeat the process, before putting it into working.
15. Temperature will be high for approximately 20 minutes after the power is turned off. Please look after it carefully until it returns to room temperature.
16. The device allows continuous working. However, make sure without any covering (cloth or others) when it is use.
17. Please switch off the device and pull out the socket, if there is a power failure when using.
18. If the device is not used for some time, store it in a dust-free environment.
19. Do not use the device as a thermal instrument in case of accident.
20. Use of this device is strictly prohibited in areas near inflammable gas or liquids.
21. Children should be guarded against touching the inner packing plastics in case of asphyxia.
22. Switch off and unplug the device if the following happen! The device should not be used until qualified technicians check and repair it.
 - The cover of the power wire is cut and damaged.
 - The power wire or socket is unusually heating.
 - There is smoking and burnt odor during use.
 - There is water or liquid into the device.

CLEANING AND DISPOSAL

1. Pull out the socket and cut off the power before cleaning and maintenance.
2. The effects of treatment may be reduced if too much dust adheres to the surface of the irradiation element. After the power is switched off and the element has cooled, the dust can be removed with a soft brush or a vacuum cleaner. Be sure not to touch the surface of the irradiation element with the inlet of the vacuum cleaner.
3. Disassembling, maintaining and changing the device by oneself is strictly prohibited.
4. Clean the cover of the device with a clean, damp cloth. Do not use volatile liquid to wipe the surface of the device.
5. The worn-out devices and elements should be disposed of in the same way as with other waste electrical devices.
6. Inner packing materials are disposed of according to the rules of local government.

GENERAL TROUBLES AND MAINTENANCE

1. If there is no warmth detected from the device 10 minutes after the device is switched on, please check:
 - Power supply and power switch (including indication light);
 - Socket;
 - Timer switch;
2. If the above items have been checked and the device still can not work, please send it to a repair service.

3. Special examination and maintenance are not needed for the device besides the routine.
4. Type and standard of the fuses: 50F, Ø5x20, 1.6A/250V.
5. The working temperature of over-temperature protector (ST) is 130°C.
6. ⚠ Standard of the irradiator (RL) is 240W/230V.

**Guaranteed period against defects under normal use is subject to the
local distributor.**

All specifications are subject to change without notice. If any relevant questions, please contact the local vendor.